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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/734,912

12/09/2003

Shin-Jen Wang

BP3035.S7-P3

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06/19/2006

SALLY CHANG

7F, NO. 3, ALLEY 32, SEC. 6 CHUNG-HSIAO EAST RD.

TAIPEI, TAIWAN, R.O.C. 115

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TAIWAN

EXAMINER

AFZALI, SARANG

ART UNIT

PAPER NUMBER

3729

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/734,912	WANG, SHIN-JEN	
	Examiner	Art Unit	
	Sarang Afzali	3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9, 10 and 12-19 is/are pending in the application.
- 4a) Of the above claim(s) 16-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 10 and 12-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The applicant's amendment filed on 4/3/2006 has been fully considered and made of record.
2. Claims 20-26 are cancelled.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: METHOD OF MANUFACTURING A WATERPROOF ZIPPER.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 9, 10, and 12-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As applied to claim 9, steps (d) & (f) recite drying and heating steps which Applicant seems to regard as the invention. However, the claim language reads broadly and can be read that both steps can be done in one heating step as claimed.

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Suggestion is made that applicant clearly identify the second heating step in addition to the first drying step.

6. Claim 9 recites the limitations "the fastener strip", "the fastener strips", and "the two fastener strips" in lines 3-6 and 11. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 9, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Norvell (US 5,386,616) in view of Press (US 6,105,214).

As applied to claim 9, Norvell teaches a method of producing a water resistant zipper (10, Fig. 1) with fastener strips (stringer tapes 12, 14, Fig. 1) coated (col. 5, lines 6-8) with polyurethane (glue/PU gel coatings 32a, 32b, 34a, 34b, Fig. 1) on both front and back sides wherein the PU gel is pressed into the fastener strips by capillary effect to improve water resistance and serve as an adhesive (col. 4, lines 55-68) to attach PU film (sealing tape 36, 38 with adhesive layer 42a, 42b and water resistant sheet 40a, 40b, Fig. 1) to the backsides of the fastener strips (12, 14, Fig. 1) to form a waterproof zipper.

Norvell teaches the invention cited with the exception of explicitly disclosing the “feeding a nylon zipper”, “drying box”, “using roller to adhere PU film with PU gel”, “cutting the waterproof layer”, “heating the PU film and PU gel”, and “guiding out the waterproof zipper”.

Press teaches a process of making water resistant slide fastener (Zipper) wherein a nylon zipper (slide fastener 10 with slide fastener structure 12 including nylon stringer tapes 14, 16, Figs. 1& 2, col. 7, lines 7-11) is fed by a feeding device (24, Fig. 2) to a laminating assembly (30, Fig. 2) wherein rollers (34, 36, Fig. 2) press and attach a water resistant PU film (26, Fig. 2) to the back of the slide fastener structure (12, Fig. 2) resulting in a laminated waterproof zipper (38, Fig. 2) which is subsequently fed to a treating station (40, Fig. 2) which is both a heating (drying) and/or cutting station (Figs. 2 & 3) to both cure and/or cut the PU film (26, col. 7, lines 22-33) and subsequently guided out (Fig. 2) to provide excellent resistance to passage of water through the gripper structure (22) of water resistant slide fastener (10, col. 7, lines 34-37).

It would have been obvious to one of ordinary skill in the art at the time of invention, to modify Norvell with the teachings of Press to provide an effective water resistant slide fastener.

9. Claim 10, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Norvell and in view of Press and further in view of Klein (US 2,768,922).

As applied to claim 10, Norvell/Press teaches the invention cited with the exception of extruding step after the heating step. However, Klein teaches a method of

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manufacturing a waterproof slide fastener (16, Fig. 4) wherein a PU film (thermoplastic film 24, Fig. 6) is adhered on the back of slide stringers (17, 18, Fig. 4) of a slide fastener (16, Fig. 4) and fed through heating station (heating roller 32, Fig. 6) and extrusion station (extruded by heating roller 32 and pressure roller 33, Fig. 6) and further extruded by cooling rollers (34, 35, Fig. 6) and guided out by winding rollers (37, 38, Fig. 6) in order to produce an article formed by a film resin and the slide fastener with superior qualities of resistance to tensile strain (col. 3, line 71, col. 4, lines 1-4). It would have been obvious to one of ordinary skill in the art at the time of invention, to add extrusion step to Norvell/Press in light of the teachings of Klein in order to produce an article formed by a film resin and the slide fastener with superior qualities of resistance to tensile strain.

10. Claims 12-13, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Norvell in view of Press and further in view of Huang (US 6,676,534). Norvell/Press teaches the invention cited with the exception of forming printing patterns and textures on the PU film between steps (d) and (e) (claims 12-13) and forming the same printing patterns and textures (following step (b)). However, Huang teaches a manufacturing method wherein printing indicia (I) is formed on PU film (polyurethane layer P2 of strip S2, Fig. 22) and texture patterns (F) are formed on PU film (polyurethane layer P1 of strip S1, Fig. 22) to provide a decorative enhancement and to increase the hoop strength of the composite strip S (col. 5, lines 35-43). It would have been obvious to one of ordinary skill in the art at the time of invention, to have provided Norvell/Press with the processing steps as taught by Huang as an effective means of

providing a decorative enhancement and to increase the hoop strength of the composite strip S (col. 5, lines 35-43). Note that step (b1) limitations of forming printing patterns and texturing as recited in claims 24 & 25 are met by Huang wherein his forming steps occur after step (d).

11. Claim 14, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Norvell in view of Press and further in view of Tolbert (US 6,579,403). Norvell/Press teaches the invention cited with the exception of the step of guide device and feeding device occurring between steps (d) and (e). However, Tolbert et al. teach a manufacturing process wherein fabric layers (52 & 56, Fig. 6) are fed by feeding device (50, Fig. 6) and passed to gluing device (60, Fig. 6) wherein PU gel (molten curable hot melt adhesive which can be polyurethane gel) is pressed into the fabric structure fabric (60 comprised of layers 52 & 56, Fig. 6) by use of capillary effect (having quick tack /green strength, col. 6, lines 47-66) and further cured in drying box (under atmospheric conditions, col. 6, 8-14) to secure multiple fabric pieces together (col. 12, lines 48-49) before taken by a guide device (68, Fig. 6) for further additional processing such as being fed to another station (col. 12, lines 37-43). It would have been obvious to one of ordinary skill in the art at the time of invention, to have provided Norvell/Press with the processing steps as taught by Tolbert et al. as an effective means of securing multiple fabric pieces together.

12. Claim 15, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Norvell in view of Press and Tolbert and further in view of Klein. Norvell/Press as modified by Tolbert et al. teaches the invention cited with the exception

of the compressing step where the PU film, PU gel, and fastener strips are firmly combined occurring after a heating step. However, Klein teaches a method of manufacturing a waterproof slide fastener (16, Fig. 4) wherein a PU film (thermoplastic film 24, Fig. 6) is adhered on the back of slide stringers (17, 18, Fig. 4) of a slide fastener (16, Fig. 4) and fed through heating station (heating roller 32, Fig. 6) and extrusion station (extruded by heating roller 32 and pressure roller 33, Fig. 6) and further extruded by cooling rollers (34, 35, Fig. 6) and guided out by winding rollers (37, 38, Fig. 6) in order to produce an article formed by a film resin and the slide fastener with superior qualities of resistance to tensile strain (col. 3, line 71, col. 4, lines 1-4). It would have been obvious to one of ordinary skill in the art at the time of invention, to have added a compressing step to Norvell/Press/Tolbert et al. as taught by Klein in order to produce an article formed by a film resin and the slide fastener with superior qualities of resistance to tensile strain.

Response to Arguments

13. Applicant's arguments filed on 4/3/2006 have been fully considered but they are not persuasive.
14. Applicant's Amendments to the Specification is accepted and the objection to the specification is withdrawn.
15. Applicant's Amendments to the claims is accepted and by canceling claims 20-26, the rejections of claims 20-26 under 112 first and second paragraphs are withdrawn.
16. Applicant's Amendments to the Abstract and Drawings are accepted.

17. As for claims 9, 10, and 11-15 and in particular independent claim 9 rejected under 35 USC 103(a) as being unpatentable over Norvell ('616) in view of Press ('214) in an office action mailed on 4/3/2006, Applicant argues in "Remarks", pages 1-8, the following:

(a) claims 5, 6, 10, 15 of Norvell ('616) claimed a layer of 'polytetrafluoroethylene' (PTFE) to assist in repelling water and such PTFE or Teflon of DuPont was endangered to some experimental pet animals (page 2, 2nd paragraph).

(b) Press ('214) referring to Fig. 1, PU film first applied to the surface of the stringer tape and then PU adhesives can be added to the PU film (page 3, paragraph 3) and that fillers added into the PU layer, and aromatic polyamide (aramid) yarn and the like may be used as the substrate (substitute) and as known, aramid yarn can be used instead of asbestos and talc can be added to the PU as an ideal slip agent, talc may contain carcinogenic asbestos fibers and furthermore that fluorocarbon or DuPont's Teflon are known as ozone depleting substances (page 4, 1st paragraph).

(c) the PU gel of the Applicant is better and more environmental friendly than the cited documents such as '214 and '616 (page 5, 1st paragraph).

(d) cited references Klein ('922) and Tolbert et al. ('403) are different from the crosslinkable adhesive as the present invention (of the Applicant) disclosed (pages 5 and 6) and that the present invention is to provide an improved crosslinkable way different from the cited documents (page 7, 2nd paragraph).

(e) cited reference Huang ('534) teaches the patterns and textures different from the present invention (page 7, 4th paragraph and page 8, 1st paragraph).

(f) In the present invention, the applicant cited TW094,285, TW126,351, TW503,715, US6,105,214, and US6,427,294. According to the abstracts of these cited documents, slide fastener and zipper are used interchangeably, while stringer tapes and fastener tapes are used interchangeably, and gripper elements, fastener elements are used interchangeably and therefore the antecedent basis of claim 9 is not proper.

18. Applicant's main arguments are that the prior art cited by the Examiner use substances that are unfriendly to the environment and also possibly to some experimentally tested animals and furthermore includes some supporting documents to that effect. The Examiner respectfully disagrees with the above arguments.

The Applicant recites what some of the prior art references teach and concludes that they are different from what the Applicant believes the main inventive steps of his invention as cited in the specification without arguing whether the cited prior art meets the limitations as claimed. The Examiner would like to point out that Applicant is arguing about aspects of his invention that are not being claimed. Applicant is reminded that no-where in claims 9, 10, and 12-15 the environmental or human or animal friendliness of his invention is being claimed. The Applicant is claiming a series of process steps in making a waterproof zipper and the prior art in combination is teaching those claimed limitations. The Examiner relies on different prior art references to teach certain steps cited in the rejection of the claims therefore does not expect each of the prior art references to teach every single limitation as claimed by the Applicant.

Furthermore, the Applicant cited some Taiwanese prior art without submitting a translated abstract but never the less uses them along with couple US references arguments to overcome the insufficient antecedent basis for limitations of claim 9. The Examiner respectfully disagrees with the above argument and points out that regardless of what other references use in their conventional way of explaining or defining certain features and components, the Applicant is required to use proper and clear language without any insufficient antecedent basis of the claimed limitations.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarang Afzali whose telephone number is 571-272-8412. The examiner can normally be reached on 7:00-3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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6/7/2006



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